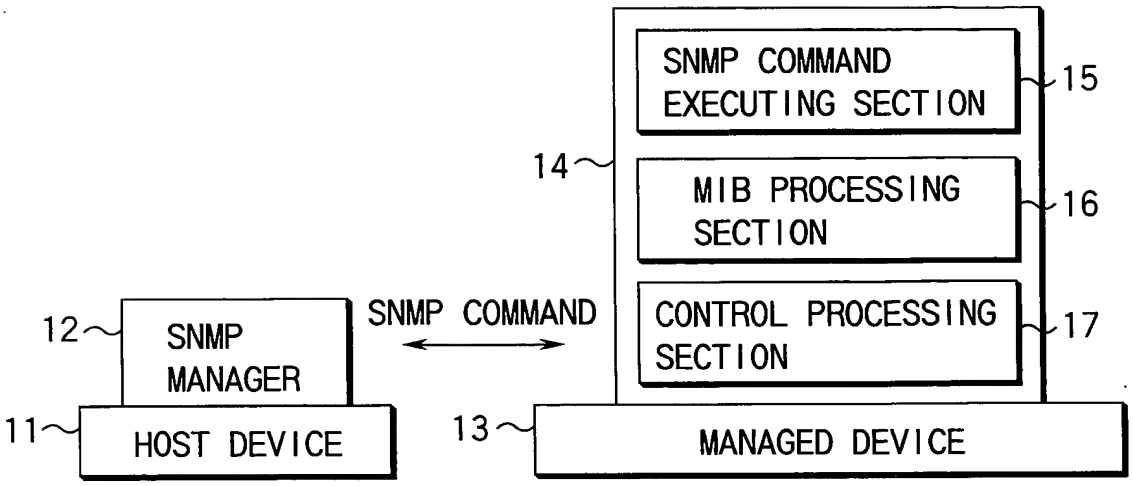

FIG. 1

FIG. 2

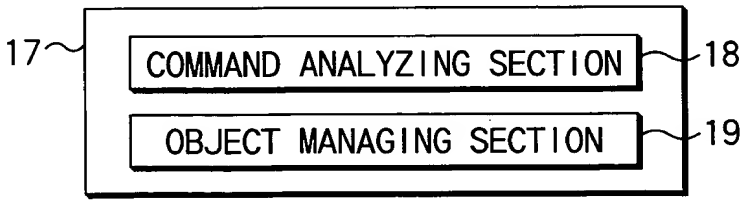

FIG. 3

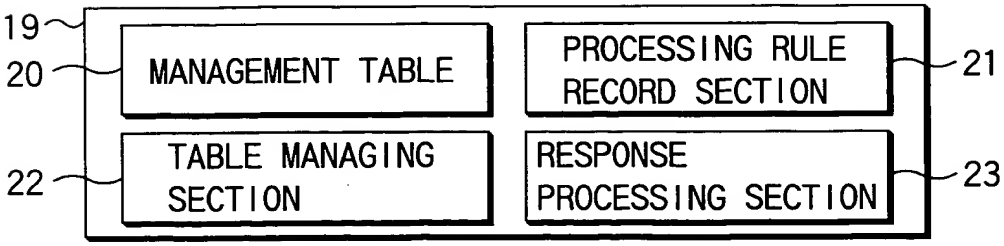

FIG. 4

20a	20b	20c	20d
MANAGEMENT OBJECT IDENTIFIER	MANAGEMENT OBJECT COLLECTION TIME	MANAGEMENT OBJECT	CLASSIFICATION DATA
××・××・××	×× m sec	50	TYPE B
------	------	------	------
------	------	------	------

20

FIG. 5

LONG COLLECTION TIME	CLASSIFICATION DATA
○(=YES)	TYPE A
×(=NO)	TYPE B

FIG. 6

TYPE A	SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.
TYPE B	SEND COLLECTION REQUEST TO MIB PROCESSING SECTION TO PREVIOUSLY STORE COLLECTED MANAGEMENT OBJECTS IN MANAGEMENT TABLE. READ MANAGEMENT OBJECT OF RECEIVED IDENTIFIER FROM MANAGEMENT TABLE TO PRODUCE RESPONSE.

FIG. 7

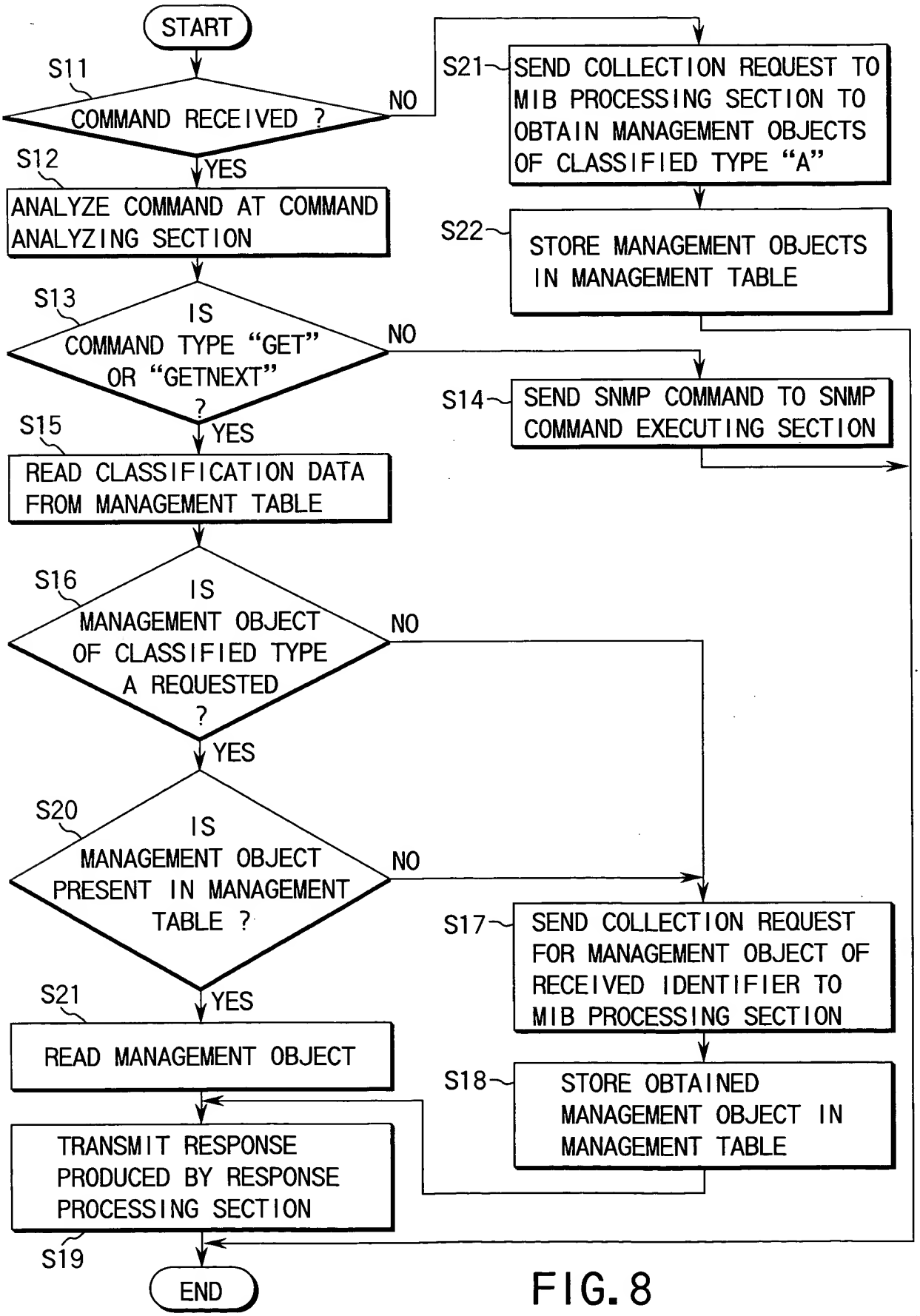
START
S11
COMMAND RECEIVED ?
NO
YES
S12
ANALYZE COMMAND AT COMMAND ANALYZING SECTION
S13
IS COMMAND TYPE "GET" OR "GETNEXT" ?
NO
YES
S15
READ CLASSIFICATION DATA FROM MANAGEMENT TABLE
S16
IS MANAGEMENT OBJECT OF CLASSIFIED TYPE A REQUESTED ?
NO
YES
S20
IS MANAGEMENT OBJECT PRESENT IN MANAGEMENT TABLE ?
NO
YES
S21
READ MANAGEMENT OBJECT
TRANSMIT RESPONSE PRODUCED BY RESPONSE PROCESSING SECTION
S19
END
S21
SEND COLLECTION REQUEST TO MIB PROCESSING SECTION TO OBTAIN MANAGEMENT OBJECTS OF CLASSIFIED TYPE "A"
S22
STORE MANAGEMENT OBJECTS IN MANAGEMENT TABLE
S14
SEND SNMP COMMAND TO SNMP COMMAND EXECUTING SECTION
S17
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION
S18
STORE OBTAINED MANAGEMENT OBJECT IN MANAGEMENT TABLE

FIG. 8

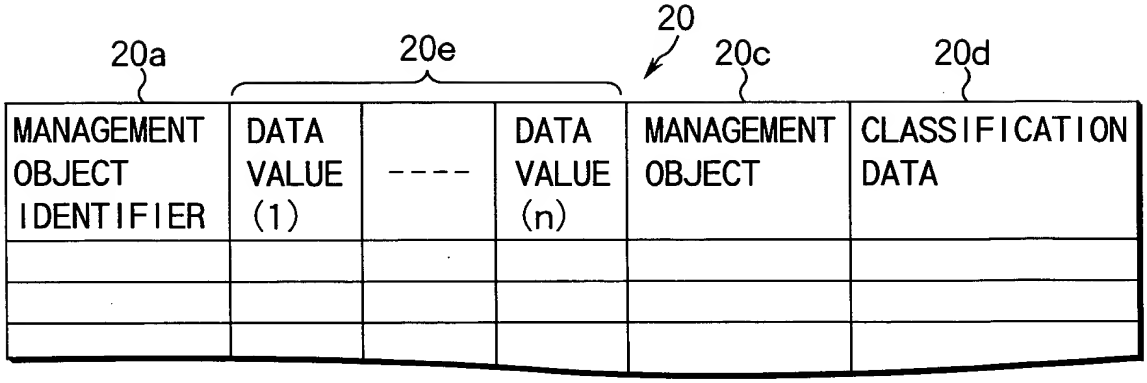

FIG. 9

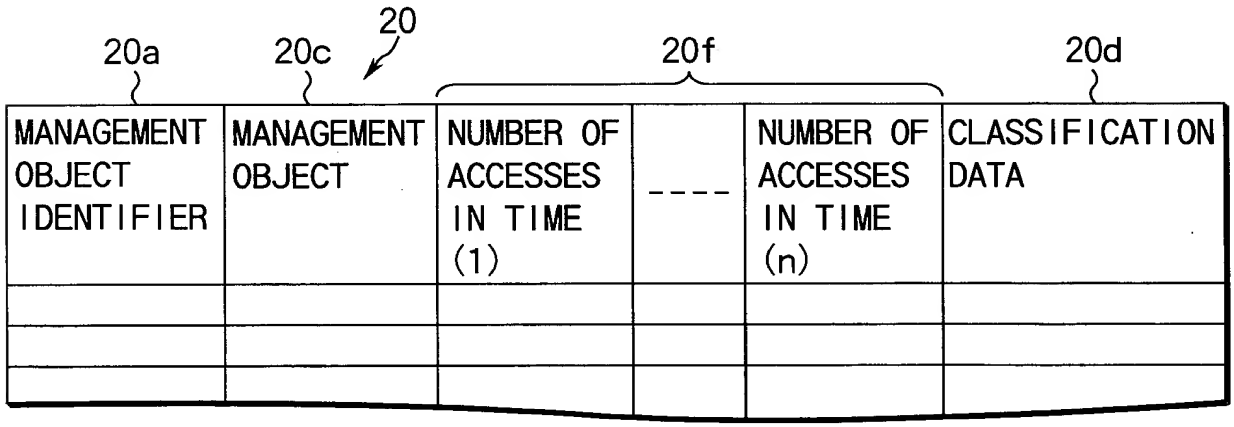

FIG. 10

TYPE A	SEND COLLECTION REQUEST FOR MANAGEMENT OBJECTS OF TYPE B TO MIB PROCESSING SECTION TO STORE COLLECTED MANAGEMENT OBJECTS IN MANAGEMENT TABLE. THEREAFTER, SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.
TYPE B	READ MANAGEMENT OBJECT OF RECEIVED IDENTIFIER FROM MANAGEMENT TABLE. IF IT IS ABSENT, SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.

FIG. 11

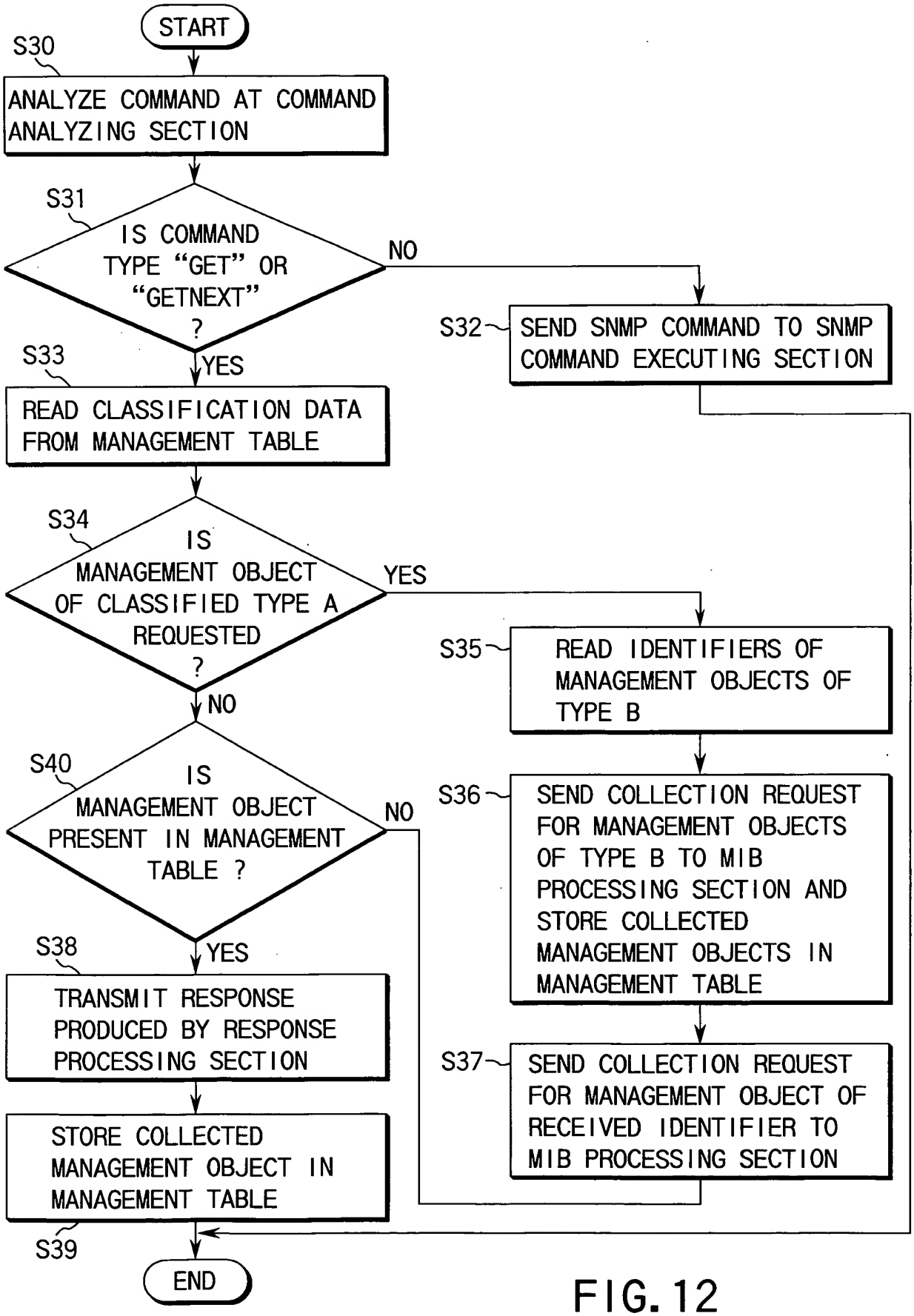
START
S30
ANALYZE COMMAND AT COMMAND ANALYZING SECTION
S31
IS COMMAND TYPE "GET" OR "GETNEXT" ?
NO
S32
SEND SNMP COMMAND TO SNMP COMMAND EXECUTING SECTION
YES
S33
READ CLASSIFICATION DATA FROM MANAGEMENT TABLE
S34
IS MANAGEMENT OBJECT OF CLASSIFIED TYPE A REQUESTED ?
YES
S35
READ IDENTIFIERS OF MANAGEMENT OBJECTS OF TYPE B
NO
S40
IS MANAGEMENT OBJECT PRESENT IN MANAGEMENT TABLE ?
NO
S36
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECTS OF TYPE B TO MIB PROCESSING SECTION AND STORE COLLECTED MANAGEMENT OBJECTS IN MANAGEMENT TABLE
YES
S38
TRANSMIT RESPONSE PRODUCED BY RESPONSE PROCESSING SECTION
S37
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION
STORE COLLECTED MANAGEMENT OBJECT IN MANAGEMENT TABLE
S39
END

FIG. 12

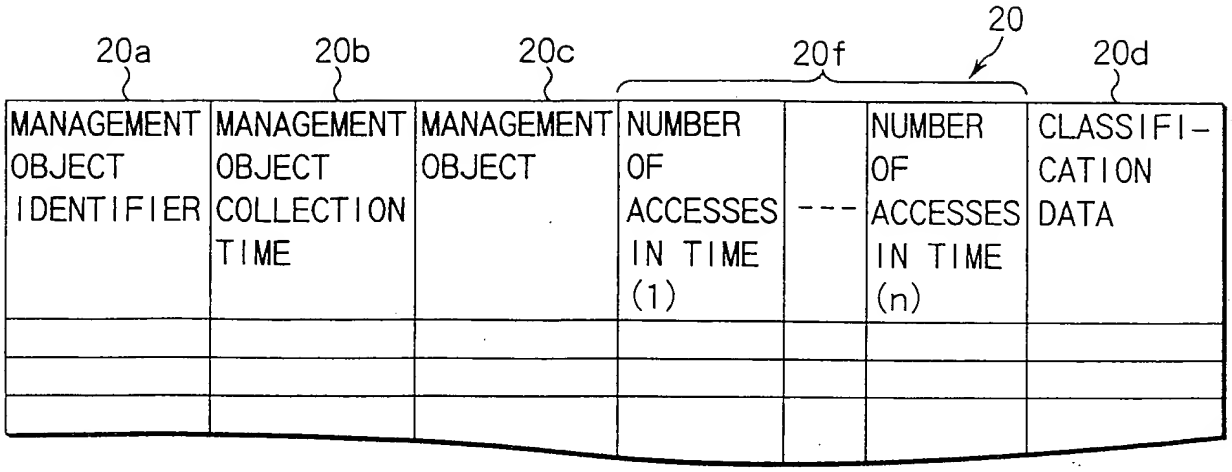

FIG. 13

LONG COLLECTION TIME	HIGH ACCESS FREQUENCY	CLASSIFICATION DATA
○	○	TYPE A
○	×	TYPE A
×	○	TYPE B
×	×	TYPE C

○=YES ×=NO

FIG. 14

TYPE A	SEND COLLECTION REQUEST FOR MANAGEMENT OBJECTS OF TYPE B TO MIB PROCESSING SECTION AND STORE MANAGEMENT OBJECTS IN MANAGEMENT TABLE. THEREAFTER, SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.
TYPE B	READ MANAGEMENT OBJECT OF RECEIVED IDENTIFIER FROM MANAGEMENT TABLE. IF IT IS ABSENT, SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.
TYPE C	SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION.

FIG. 15

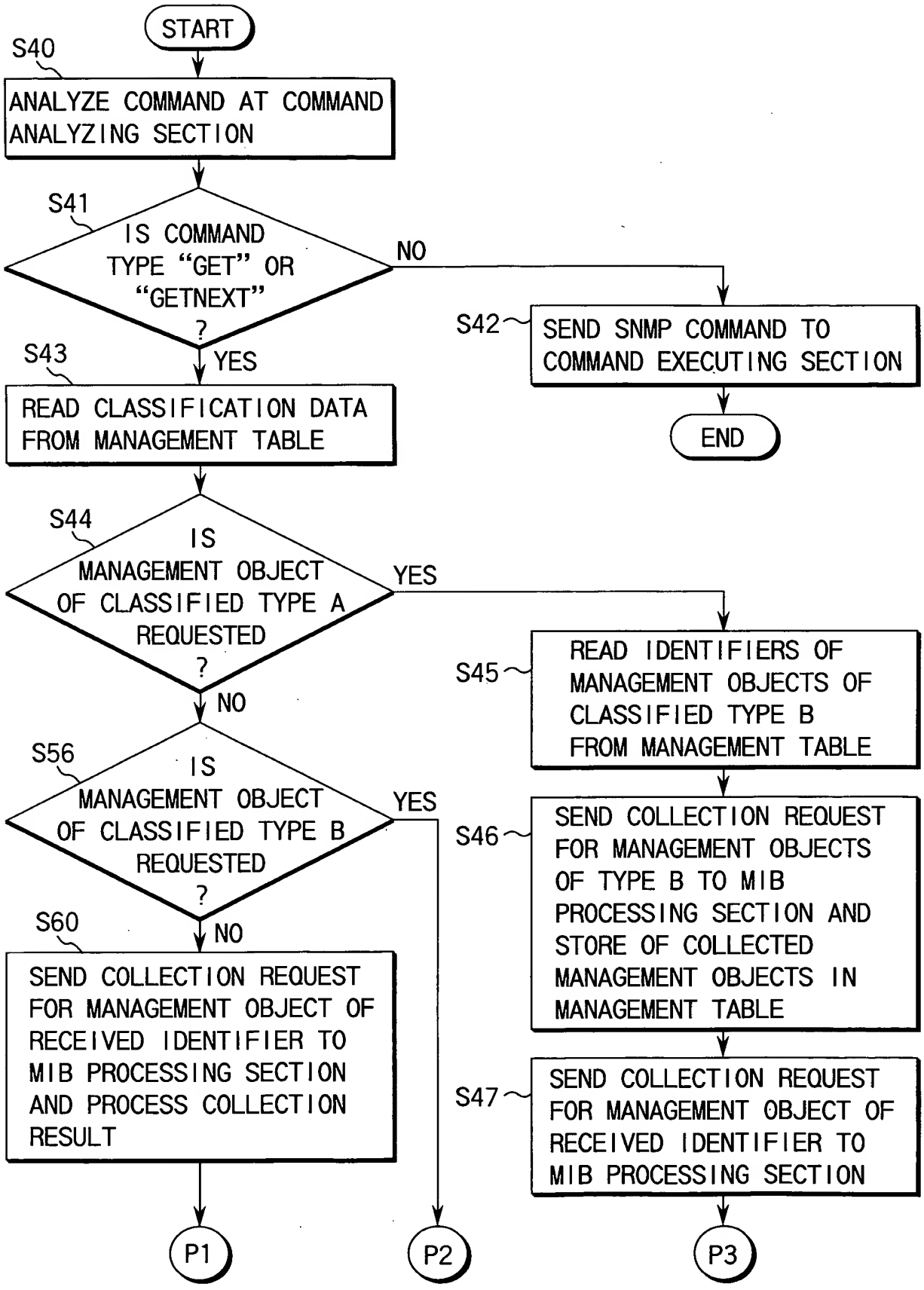
START
S40
ANALYZE COMMAND AT COMMAND ANALYZING SECTION
S41
IS COMMAND TYPE "GET" OR "GETNEXT" ?
NO
S42
SEND SNMP COMMAND TO COMMAND EXECUTING SECTION
END
YES
S43
READ CLASSIFICATION DATA FROM MANAGEMENT TABLE
S44
IS MANAGEMENT OBJECT OF CLASSIFIED TYPE A REQUESTED ?
YES
S45
READ IDENTIFIERS OF MANAGEMENT OBJECTS OF CLASSIFIED TYPE B FROM MANAGEMENT TABLE
NO
S56
IS MANAGEMENT OBJECT OF CLASSIFIED TYPE B REQUESTED ?
YES
S46
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECTS OF TYPE B TO MIB PROCESSING SECTION AND STORE OF COLLECTED MANAGEMENT OBJECTS IN MANAGEMENT TABLE
S60
NO
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION AND PROCESS COLLECTION RESULT
S47
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION
P1
P2
P3

FIG. 16A

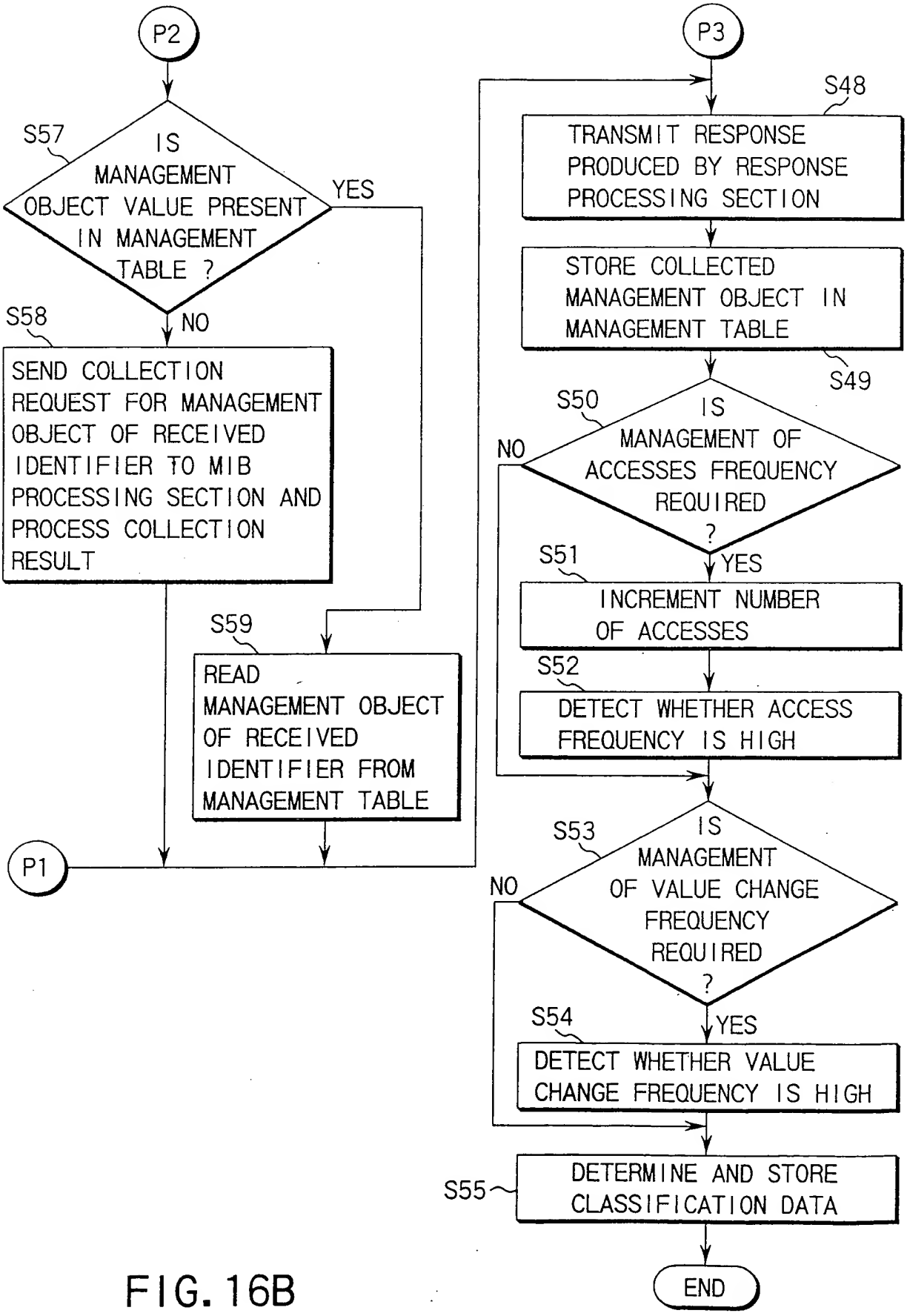
P2
S57
IS MANAGEMENT OBJECT VALUE PRESENT IN MANAGEMENT TABLE ?
YES
NO
S58
SEND COLLECTION REQUEST FOR MANAGEMENT OBJECT OF RECEIVED IDENTIFIER TO MIB PROCESSING SECTION AND PROCESS COLLECTION RESULT
S59
READ MANAGEMENT OBJECT OF RECEIVED IDENTIFIER FROM MANAGEMENT TABLE
P1
P3
S48
TRANSMIT RESPONSE PRODUCED BY RESPONSE PROCESSING SECTION
STORE COLLECTED MANAGEMENT OBJECT IN MANAGEMENT TABLE
S49
S50
IS MANAGEMENT OF ACCESSES FREQUENCY REQUIRED ?
NO
YES
S51
INCREMENT NUMBER OF ACCESSES
S52
DETECT WHETHER ACCESS FREQUENCY IS HIGH
S53
IS MANAGEMENT OF VALUE CHANGE FREQUENCY REQUIRED ?
NO
YES
S54
DETECT WHETHER VALUE CHANGE FREQUENCY IS HIGH
S55
DETERMINE AND STORE CLASSIFICATION DATA
END

FIG. 16B

20a	20b	20c	20e			20d
MANAGEMENT OBJECT IDENTIFIER	MANAGEMENT OBJECT COLLECTION TIME	MANAGEMENT OBJECT	DATA VALUE (1)	---	DATA VALUE (n)	CLASSIFICATION DATA

FIG. 17

LONG COLLECTION TIME	HIGH VALUE CHANGE FREQUENCY	CLASSIFICATION DATA
○	○	TYPE A
○	×	TYPE A
×	○	TYPE B
×	×	TYPE C

○=YES ×=NO

FIG. 18

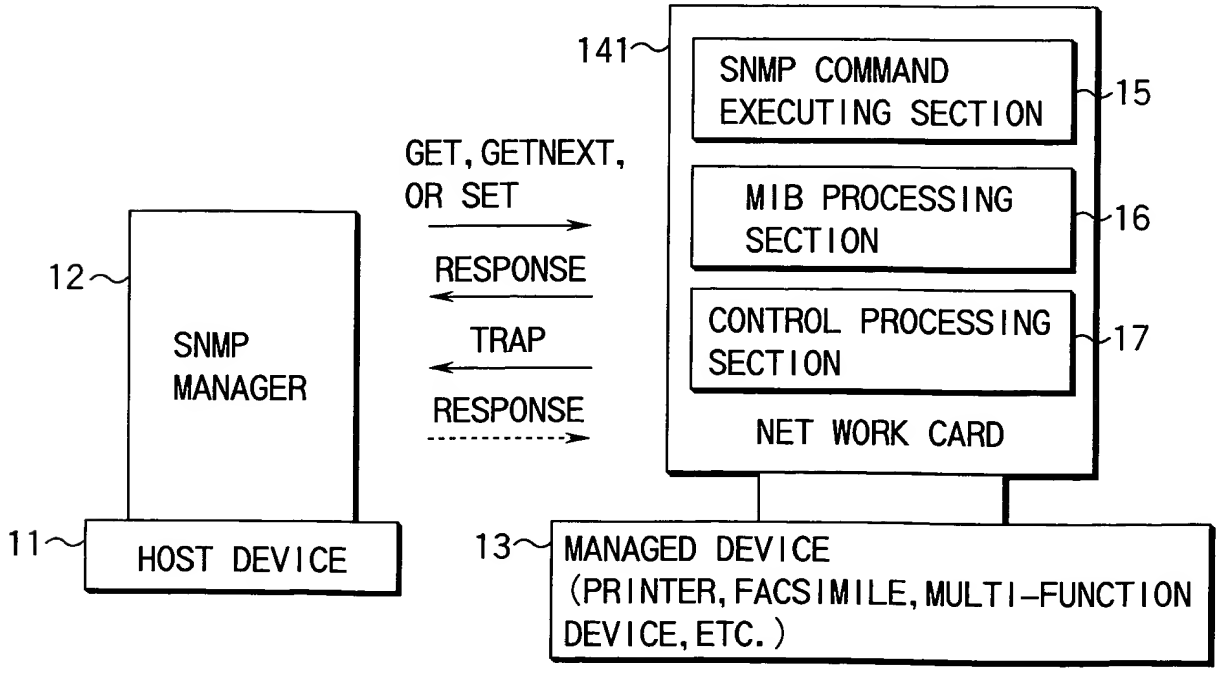

FIG. 19